

Objection to the Specification

The Specification has been objected to for various informalities. Each of the objections is addressed below.

First, the Office Action alleges that the term “digital sung signal” is unclear. Applicants respectfully disagree. The term digital sung signal is described throughout Applicants’ specification. For example, the Abstract of the Disclosure states that “a first portion of the digital speech signal is mixed with a first portion of the digital music signal to produce a digital sung signal.” This is a clear description and definition of the digital sung song. Despite having noted this exemplary description of the term to the Examiner, the Examiner continues to state that “the reference disclosure (i.e. Abstract) provided by applicant is not [a] definition of the term and does not answer what it really is, at all.” Paragraph 2. Accordingly, Applicants respectfully request that the Examiner withdraw the objection. Otherwise, the objection should be clarified as Applicants sincerely do not understand the continued objection in light of the description.

Second, the Office Action alleges that the described mixer means 4 lacks a reasonably clear description for implementing it. Applicants respectfully disagree. Mixer is a term of art known to those skilled in the art. Moreover, the Specification provides that the mixer means are software means integrated into the processor. Pages 6, lines 10-11. Accordingly, Applicants respectfully request that the Examiner withdraw the objection. Otherwise, the objection should be clarified.

Third, the Office Action alleges that the statement “replace the fundamental frequency of and the harmonics of the voice signal by the fundamental frequency and the harmonics of each of the notes of the music signal during the note” directly conflicts the statement “a portion Y% of a

musical sinusoidal signal deduced from the signal S2 is substituted for a portion X% of the speech sinusoidal signal." See Specification page 5, line 28 to page 6, line 2. Applicants respectfully disagree. The present invention is capable of performing both functions described. Applicants are willing to aid the Examiner, but request that the Examiner clarify the alleged conflict. Otherwise, the objection should be withdrawn.

Fourth, the Office Action alleges that the statement "said peak power corresponding to the fundamental frequency of a vowel" is not true. See Specification page 6, lines 29-34. Applicants are not sure if the Examiner is taking some form of Official Notice or is based upon facts with the Examiner's person knowledge. If so, the Examiner has not presented adequate, specific data or information. Accordingly, Applicants respectfully request documentary evidence supporting the assertion in the next Action if this objection is maintained. See 37 C.F.R. § 1.04(d)(2) and M.P.E.P. § 2144.03.

Fifth, the Office Action alleges that the VAD forcing the mixer is logically or structurally incorrect because the mixer 4 processes signals before the vocoder 6. Applicants respectfully disagree. Applicants Specification provides that the VAD may (emphasis added) force the mixer means to move on to the next note. Accordingly, the objection should be withdrawn.

All Claims Comply With 35 U.S.C. § 112, first paragraph

Claims 3, 4, 14, and 15 stand rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention.

The Office Action alleges that the claimed means for replacing the fundamental frequency of said speech signal by the fundamental frequency associated with a note of a music signal lacks enablement to one of ordinary skill in the art based on the disclosure of the

specification. Applicants respectfully disagree. The Office Action also states that “it is well known in the art that the range of fundamental frequencies of human speech is much narrower than that of musical instruments.” Applicants request that the Examiner clarify the rejection 35 U.S.C. §112, first paragraph, because a feature that is allegedly well known should be enabled to one of ordinary skill in the art. The rejection is inconsistent and meaningless and should be withdrawn.

All Claims Comply with 35 U.S.C. § 112, second paragraph

Claims 1-21 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicants respectfully traverse the rejection for the following reasons.

The Office alleges that the claimed term digital sung signal is indefinite because it is unclear what the term really is and the term is not commonly accepted in the art and lacks clear description in the specification. Applicants respectfully disagree.

The term digital sung signal is described throughout Applicants’ specification. For example, the Abstract of the Disclosure states that “a first portion of the digital speech signal is mixed with a first portion of the digital music signal to produce a digital sung signal.” Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 112, second paragraph, be withdrawn.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-7 and 10 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Pawate* in view of *Boss et al.* Claim 8 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Pawate* in view of *Boss et al.*, and further in view of *Kageyama et al.* Claim 9 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Pawate* in view of *Boss et al.*, and further in view of *Kageyama et al.-2*.

Claims 11-18 and 21 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Pawate* in view of *Boss et al.*, and further in view of *Taniguchi et al.* Claim 19 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Pawate* in view of *Boss et al.* and *Taniguchi et al.*, and further in view of *Kageyama et al.* Claim 20 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Pawate* in view of *Boss et al.* and *Taniguchi et al.*, and further in view of *Kageyama et al.*-2. Applicants respectfully traverse the rejection for at least the following reasons.

The Office Action alleges that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify *Pawate* by providing a compatible standard format, such as MIDI, for representing speech and/or music signals, as taught by *Boss et al.* for the purpose (motivation) of efficiently representing, storing, and transmitting sound/audio signals including music and/or speech signals. Paragraph 8. Applicants respectfully disagree. *Pawate* discloses that a key of the music is stored in a CD data field. Thus, as *Pawate* already employs a standard format, i.e. a CD format, *Pawate* would not have been motivated to provide a compatible standard format for the purpose (motivation) of efficiently representing, storing, and transmitting sound/audio signals including music and/or speech signals as alleged by the Office Action. Accordingly, there is no motivation to combine *Pawate* and *Boss et al.*.

As there is no motivation to combine *Pawate* and *Boss et al.*, the rejections claims 1 and 11 should be withdrawn. Furthermore, claims 2-10 and 12-21 depend from one of independent claims 1 or 11. Accordingly, claims 2-10 and 12-21 are also allowable because of the additional features they recite and the reasons stated above.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and the timely

allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the Response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,
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